

# **NOTICE**

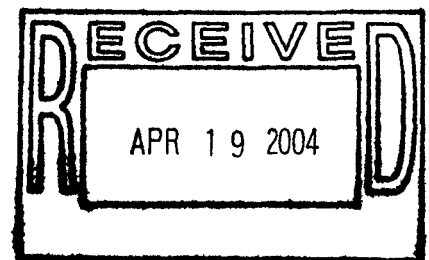
**All drawings located at the end of the document.**

**Colorado Department of Public Health and Environment**

**Buffer Zone Contamination Report**

**Additional Assessment**  
(Submitted April, 2003)

**Rock Flats Environmental Technology Site**  
**Response to Concerns**  
**April 8, 2004**



**ADMIN RECORD**

**BZ-A-000686**

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**Colorado Department of Public Health and Environment  
Buffer Zone Contamination Report  
Additional Assessment (Submitted April, 2003)**

**Rock Flats Environmental Technology Site  
Response to Concerns**

This document was prepared by the Rocky Flats Environmental Technology Site for presentation to the CDPHE/EPA at a meeting held on February 19, 2004. The purpose of the meeting was to reach agreement on areas identified in the Buffer Zone Contamination Report (BZCR) Additional Assessment dated April of 2003. The concerns identified in this Additional Assessment were addressed and agreement was reached.

The concerns listed below have been numbered in the order they appear in the April 2003 document however, in this response, an (a) follows the original numbering to differentiate these sites from the prior concerns identified by CDPHE in 2000. Finally, the 2003 document identified one site (Site # 30) which was previously submitted in the 2000 BZCR. The Regulatory Agencies have agreed that Site #30 has no remaining actions (Regulatory Contact Record dated January 10, 2001).

**EXPLANATION OF CONCERNS**

**SITE #1(a) Follow up to April 2003, Assessment**

**CDPHE Concern** It was agreed that the majority of Site #20 was a result of small mammals (Prairie Dogs) due to the existence of the features in a July 23, 1937 photograph. The April, 2003 Assessment requests further explanation for the 1962 and 1969 specific areas (photos included in the 2003 assessment) where vehicle tracks and objects within the features can be seen.

**Explanation:** The photographs were reviewed and many individuals have been interviewed regarding the features. Several opinions were formed regarding the features in these photographs but none could be confirmed. Therefore, three locations were selected for drilling from the northernmost area of the features (shown in the 1962 and 1969 photographs) to confirm that there is no contamination present (Figure 1). Figure 2 shows the analytical data that exceeded background concentrations for the three borehole sites. Because there were no WRW or Ecological Receptor exceedances, no follow-up actions are planned for this area.

The following approach was agreed to with the Regulatory Agencies in a meeting held December 4, 2003.

- 1) Three locations from the northern most area of features would be sampled. The areas were selected primarily based on the visible depressions within two of the areas and a concentration of features within another. Coordinates are as follows:  
X 2080782, Y 752600,  
X 2080063, Y 752599,  
X 2079676, Y 752304

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- 2) Boreholes were placed within each location on February 3, 2004, and three sampling intervals were collected from 0-0.5 feet, 0.5 to 2.5 feet, and 2.5 to 4.5 feet. Samples were analyzed for radionuclides (using both alpha and gamma spectroscopy), total metals, and VOCs. If contamination was identified, further sampling would be discussed.
- 3) All sampling was conducted in accordance with the approved Buffer Zone Contamination Report SAP. Results were expedited, validated and reported to the Regulatory Agencies on February 19, 2004.

**SITE #2(a) Identified in Additional Assessment dated April, 2003**

**CDPHE Concern** The September 25, 1975 aerial photo shown in the assessment dated April, 2003, show approximately 19 cylindrical objects whose diameter appears to be in excess of six feet. The objects are located North of Pond A-2 (North Walnut Creek Drainage) and West of the disturbed soil associated with Pond A-3. Discussions with the Stewardship group at DOE suspected the objects were electrical cable spools because power lines were being installed at RFETS during that time frame. Further investigation is necessary to confirm this issue.

**Explanation** The September 25, 1975 photograph was viewed under magnification and the area was walked down on December 1, 2003, by DOE and Kaiser-Hill Company L L C (K-H) management. There is an access road and level area where the cylindrical features were once located. In the photograph, it is also apparent that construction of Pond A-3 is underway while spray irrigation is evident at Ponds A-2 and A-1. The cylindrical objects are either large rolls of construction piping used for spray evaporation or pond construction/maintenance or they are large spools of electrical conductor cable used for the nearby power-lines running north/south and east/west through the East Buffer Zone. Review of the utility right of way easement maps make it most probable that it is the latter (i.e., a staging area for cable used by Public Service Company, now Xcel Energy). Xcel Energy personnel were interviewed on January 9, 2004, however records could not be found to substantiate work on the line during this time. No further research is planned for this area.

**SITE #3(a) Identified in Additional Assessment dated April, 2003**

**CDPHE Concern** The July 29, 1983 aerial photo shown in the assessment dated April, 2003, identifies what appears to be an area constructed to hold water immediately West of the Present Landfill. The purpose for this structure and nature of the visible contents needs to be documented and possibly investigated.

**Explanation** The photograph referenced above was reviewed as well as other photographs from this time. Several individuals were interviewed in late November 2003. Mr. Lou Richmond of Wackenhut Services (employed at RFETS since 1970) recalls that this feature is associated with the original construction of the New Firing Range and was the original planned location for the facility. The area was not used as a holding pond or disposal area, but may have collected storm runoff after heavy precipitation events. Monthly precipitation records were reviewed for 1983 (Figure 3). The records show that for the months beginning in May and ending August, more than twice the 24-year average precipitation occurred. The water shown in the photograph is very likely storm runoff. The location for the Firing Range was later relocated to its present location because of proximity to the present landfill operations. The present Firing Range was constructed in 1983. There are no follow-up actions or research planned for this area.

## 1983 ANNUAL ENVIRONMENTAL REPORT

Monitoring Summary/RFP-ENV-83

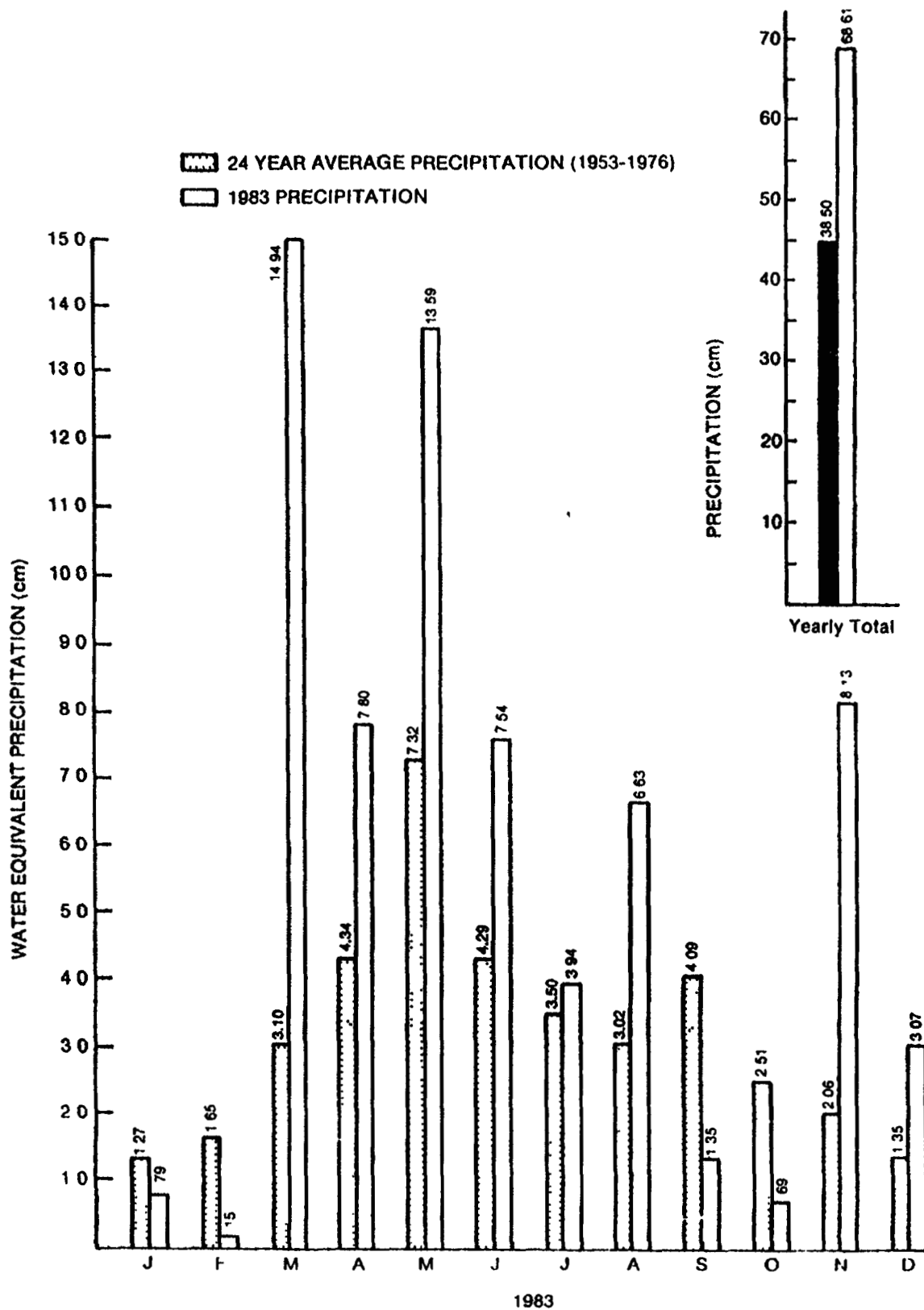


FIGURE 6 Monthly and Annual Water-Equivalent Precipitation at the Rocky Flats Plant

Figure 3

**SITE #4(a) Identified in Additional Assessment dated April, 2003**

**CDPHE Concern:** The July 1, 1969 aerial photo shows two disturbed areas east and slightly south of the Present Landfill. What these disturbances were caused by needs to be documented and possibly investigated.

**Explanation:** The photograph referenced above was reviewed. In effect, there are three areas where soil appears to be disturbed within the box on the photograph. These areas are known IHSSs NE-166 1, 166 2, and 166 3. Originally part of Operable Unit 6, they are identified in the Historical Release Report (HRR, 1992) as Trenches A, B, and C. All three trenches were approved as NFAA in a letter dated February 14, 2002 from T. Rehder and S. Gunderson (CDPHE) to J. Legare (DOE, RFFO). There are no follow-up actions or research required for this area.

**SITE #5(a) Identified in Additional Assessment dated April, 2003**

**CDPHE Concern:** The June 26, 1991 aerial photo (#42081-09) shows two dark mounds of material, one north, and one south. The southernmost mound is within the Present Landfill boundary. The material is possibly asphalt. What this material is, where it came from, and what its ultimate disposition was needs to be investigated and documented.

**Explanation:** The photograph referenced above was reviewed and the northern site was walked down on December 1, 2003, by DOE and K-H management. Some of the dark colored material is present at this location and is basalt rock used as rip-rap during construction of the McKay Ditch constructed in the early 1980s. During the February 19, 2004 meeting with the Regulatory Agencies, a specimen of this material was passed around for observation.

Twenty Soil Disturbance Permits were reviewed for the June 1991 timeframe to identify possible asphalt removal projects, which may help explain the dark material shown in the southern location (within the Present Landfill). Of the permits reviewed, the most likely origin for the dark material is asphalt removed from parking areas for installation of the following multiple trailers T119B, T124A, and T131A. Another possibility for this material is that it is the same rip-rap as noted a short distance to the north. No follow-up actions or research is planned for this area.

**Figure 2  
Buffer Zone  
Contamination Report  
(Site 20a)  
Borehole Results**

## KEY

**Results above background mean plus 2 standard deviations and below WRW and Eco action levels**

## Streams

## Dirt roads

## Paved roads

## Standing building

### Demolished building

## Fence

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**Scale = 1 4000**

**State Plane Coordinate Projection  
Colorado Central Zone  
Datum NAD 27**

**U S Department of Energy  
Rocky Flats Environmental Technology Site**

Prepared by:

Date 04.12.04



Prepared for:

**KAISER • HILL  
COMPANY**

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